

In fabricating practical organic photosensitive optoelectronic devices, in addition to determining the optimal number of and thickness of layers to have in a stacked photosensitive optoelectronic device as discussed above, the area and arrangement of individual cells may be chosen to optimize efficiency and cost. Since the transparent electrodes that are to be used in these devices do have some residual absorption, it is preferable to keep such electrodes thin to minimize this absorption. In addition, keeping the electrode layers as thin as practicable minimizes fabrication time. On the other hand, as all electrode materials are made thinner, their sheet resistance increases. Therefore, it is preferable to minimize the distance which charge carriers must travel in the electrode after collection. A configuration which maximizes photosensitive optoelectronic receptive area and accomplishes this goal is one in which the devices are laid out in long strips on the substrate with electrical connection made to the devices electrodes along the longer sides. U.S. Patent Application Serial No. 08/976,666 to Forrest et al. (hereinafter Forrest Appl. '666), which is incorporated herein by reference in its entirety, describes techniques for fabrication of practical organic thin film devices.

**In the Claims:**

Please amend the claims as follows:

29. (twice amended) An organic photosensitive optoelectronic device comprising:  
a substrate having a first major surface and a second major surface;  
two transparent metal substitute electrode layers in superposed relationship  
upon said first major surface of said substrate; and  
four photoconductive organic layers, having an inner pair and an outer pair,  
disposed between said two transparent metal substitute electrode layers.

~~31.~~ (twice amended) An organic photosensitive optoelectronic device comprising:  
a substrate having a first major surface and a second major surface;  
two transparent metal substitute electrode layers in superposed relationship  
upon said first major surface of said substrate; and  
four photoconductive organic layers, having an inner pair and an outer pair,  
*B3* disposed between said two transparent metal substitute electrode layers, wherein said inner  
pair of said four photoconductive organic layers consists of a pair of photoconductive organic  
layers selected to form a photovoltaic heterojunction and selected to have spectral sensitivity  
in a specified region of the electromagnetic spectrum, and wherein said inner pair of said four  
photoconductive organic layers comprises aluminum *tris*(8-hydroxyquinoline) and 4,4'-  
bis[N-(1-naphthyl)-N-phenyl-amino]biphenyl.

*B4* ~~3~~ ~~31.~~ (amended) An organic photosensitive optoelectronic device comprising:  
a substrate having a first major surface and a second major surface;  
two transparent electrode layers in superposed relationship upon said first  
major surface of said substrate; and  
only one pair of photoconductive organic layers selected to form a  
photovoltaic heterojunction disposed between said two electrode layers,  
wherein the only one pair of photoconductive organic layers is selected from  
the group consisting of a copper phthalocyanine layer with a perylenetetracarboxylic  
dianhydride layer, and a copper phthalocyanine layer with a 3,4,9,10-perylenetetracarboxylic-  
bis-benzimidazole layer.

#### REMARKS

The Office Action mailed October 23, 2000 and the references cited therein  
have been carefully studied and, in view of the following representations, reconsideration and  
allowance of this application are most respectfully requested.

In the Office Action mailed October 23, 2000, the Examiner requested